GrummanWorld

Volume 5, Number 18 October 10, 1986

That Commercial Message Might Be Brought To You By Grumman

New Electronics Systems product slated for tv station market

"Stand by to roll commercial!" won't be heard much anymore in cable and television stations — not if they have Grumman's new automatic insertion system, the AIS5000. This new Electronics Systems Division product is slated to go on the market early next year.

AIS5000 is a computerized controller that runs tape machines and other equipment and automatically readies — or queues in television jargon — taped commercials for broadcast. At the time the commercial is scheduled for airing, AIS5000 broadcasts it, then verifies that the commercial was broadcast. In addition, the system processes sales information and prepares the bills that the station will send to the advertisers.

"It's derived from the system we built under a major contract to NBC," says Ken Speiser, deputy director of Business Development at Great River Operations (L.I.). "But the NBC system was designed to meet the unique needs of a network. AIS5000 is a standardized system."

Now in final field tests, AIS5000 is aimed at a big market: 6,000 cable station operators and 1,100 independent broadcasters in the nation.

Great River also expects the Armed Forces Radio and Television Network to issue a request for proposal in the near future for just such a system. Great River estimates the total market for this kind of system to be in excess of $200 million.

"We have a few competitors," Speiser admits. "But we believe we offer the most features for the money."

AIS5000 can feed prerecorded messages to many channels and doesn't require dedicated tape machines for each channel and commercial. This feature is not offered in most competing systems, according to Speiser. AIS5000 also has built-in test capability, and its open software allows broadcasters to tailor the sales and billing functions to their particular requirements.

While the tape machines and other hardware will be purchased from vendors, Great River will manufacture the controllers and assemble the system.■

Seeking Commercial Success. *Ray Wickman of Software Engineering operates Electronics Systems' latest product, the AIS5000. It automates the commercial broadcast process for TV stations and goes on the market next year. (Photo by Rich Breunig)*

With Clean Room Up And Running, Tachonics Prepares For Production

PLAINSBORO, New Jersey — Tachonics Corporation recently built a room that's free of dust and almost invisible particles.

It's called a clean room, and this affiliate of the Electronics Systems Division will use it to produce gallium arsenide circuits. Tachonics will begin making prototypes in about a month, with full production several months later.

"This is the first milestone for us," says Bill Sirico, vice president of Tachonics. "We moved into the building in May and it only took five months to put the clean room together."

Tachonics now has 23 people and will have a full complement of 40 by year's end.

Grumman established Tachonics to tap the emerging market for gallium arsenide integrated circuits. Gallium arsenide chips are more radiation and heat resistant than their silicon counterparts, and better conductors of electricity. That makes them highly attractive to manufacturers of military electronics and high-speed computers.

The circuits require stringent manufacturing controls. The slightest bit of dust on a gallium arsenide chip would make it useless. To eliminate that possibility, the chips must be manufactured in a cleaner-than-squeaky-clean environment.

When Grummanites enter the clean room, they step into a changing room. At Tachonics, it's called the gowning area. They don lint-free coveralls, hats, gloves and shoe coverings. As they pass into the clean room itself, they step on sticky mats that pull off any particles stuck to the bottoms of the shoe coverings.

Air is finely filtered before it is blown into the clean room. When workers open the door to the work room, this clean air blows past them. The rush of air keeps dust particles in the changing room air from entering the work room.

Tachonics plans to sell the chips to manufacturers of sophisticated electronics, including other Grumman divisions.■

Fifty Thousand Balloons. *To kick off its 1986 campaign, the Long Island United Way launched 50,000 balloons at the Colonie Hill, Hauppauge, on September 18. The 700 campaign volunteers — including several dozen Grummanites — sponsored balloons for a donation of $1 each. For more information on the Grumman United Way campaign,* *see page 7.* *(Photo by Bob Settles)*

Army Taps Grumman To Build Advanced Composite Shelters

Aircraft Systems has won a $1 million Army contract to design, build and test a lightweight nuclear-hardened shelter made of advanced composites.

Two shelters, designed to fit on the Army's High Mobility Multipurpose Wheeled Vehicle, will be built under the contract with the Army's Natick Research, Development and Engineering Center in Massachusetts. They will house command, control, communication and intelligence hardware in the field and protect them from the effects of tactical nuclear explosions. The Army awarded a similar contract to Goodyear Aerospace.

Grumman has begun work under the first phase of the program, the six-month, preliminary conceptual design effort. Once the design is finished and approved by the Army, the Grummanites in Milledgeville, Georgia, will make the composite parts and assemble two prototype shelters.

In the summer of 1985, under a subcontract to Kaman/AviDyne, a division of Kaman Sciences Corporation of Massachusetts, Grumman designed and built a graphite/epoxy wall for a similar shelter for the Defense Nuclear Agency. This shelter was to meet International Standards Organization (ISO) specifications for nuclear hardening.

In a test in June, 1985, the ISO wall withstood a simulated nuclear explosion that was more than half as powerful as the atomic blast that destroyed Hiroshima in WW II.

The ISO wall and the shelter being designed for Natick are similar only in that both are made of non-metallic, advanced composite materials. The Army shelter is an advanced, lightweight design that features additional resistance to the electromagnetic interference from nuclear explosions and utilizes automated fabrication techniques.■

Picture Perfect. *Nick Frangkos of Engraving in Building 3, Bethpage, inspects the lettering on front panels of EA-6B jammer status units. The letters are engraved on the panels by spraying the panels with a photo-sensitive material, exposing them to light that passed through a piece of photographic film, and then etching the panels with acetone. (Photo by Bob Settles)*

Space Systems Unit To Relocate

Civil space work to move to Houston by end of year

On October 1, Grumman announced that one unit of the Space Systems Division will be transferred from Long Island to Houston, Texas. The civil space programs group, which is responsible for work related to NASA's space station and other non-military projects, will relocate by the end of this year.

"In 1985, we restructured our operating management into divisions to align each division with the specific markets it serves and to reduce costs," said President John O'Brien. "We believe the Space Systems Division will improve service to its NASA customers by relocating this operating unit."

"The move will also open up new opportunities for Grumman people who work on our civil space programs," adds Alex Alexandrovich, Space Systems President.

The transfer involves fewer than 100 employees who are principally engineers and highly skilled technicians. The division has about 500 people in its Long Island work force. If plans now underway for new business development succeed, the division's Houston work force could expand to more than 1,000.

Annual Luncheon List Trimmed

This year's 25-year luncheon will be held December 9 at the Colonie Hill in Hauppauge. As announced at last year's luncheon, the 1986 affair has been scaled down to a more comfortable and manageable size.

All retirees with more than 25 years of company service will continue to be invited. "The luncheon has traditionally been a special reunion for retirees," says Bob Bradshaw, Grumman vice president and secretary. "It's a time to renew old acquaintances and welcome the younger members into the 25-year club."

In addition to the retirees, all those Grummanites celebrating 25, 30, 35, 40, and 45 years of company service in 1986 will be invited to this year's luncheon. "The luncheon has grown so large that we have lost the personal touch," says Bradshaw. "In fact, we were having trouble finding a place that was large enough to handle the luncheon."

Adding to the problem is the planned razing of the Colonie Hill early next year to make room for a new hotel complex.

Starting this year, the 25-year luncheon will be run using a system similar to high school and college reunions. For example, those celebrating service milestones this year will be invited to the 1991 luncheon. The invitation list for 1987 will include all those who celebrate major service milestones next year.

Last year, over 6,500 Grummanites were invited to the annual affair. Of that amount, over 3,500 attended. By limiting the event to only retirees and those celebrating major service milestones in 1986, the invitation list has been trimmed to 4,000.

At this year's luncheon, 274 Grummanites will receive their gold 25-year watches. In 1987, that number jumps to 1,100; in 1988, 1,200; in 1989, 800; and in 1990, 1,600.■

Personals

On behalf of my wife and family, I wish to express my sincere appreciation to my friends at Grumman for their kind thoughts and sympathy during our recent loss. **Bob McGuckin**

The family of William C. MacLaury would like to thank friends and co-workers for their kind words during our time of bereavement. **John MacLaury**

My family and I extend our sincere thanks to friends, co-workers and ESO for their kind expressions of sympathy on the recent loss of my mother. The comforting thoughts are deeply appreciated. **Henry Koch**

We wish to thank all our friends, and co-workers for their kind expressions of sympathy during our recent loss.**The Breunig Family**

My family and I wish to thank our Grumman friends for their sympathy and kindness during the recent loss of my wife Julie. **Martin K. Makboulian**

My family and I wish to thank friends and co-workers for their kind expressions of sympathy during the recent loss of my mother. **George Peck**

My family and I would like to thank my co-workers, ESO and Grumman Recreation for their kind expressions of sympathy during the recent loss of my mother. **Ron Knight**

My family and I wish to express our sincere thanks and appreciation to all my co-workers in Corporate Estimating and ESO for their kindness and sympathy during the recent loss of my mother. **Bob Keiser**

My family and I wish to express our deepest heartfelt thanks and appreciation to all our friends and ESO for their kind expressions of sympathy and love during the recent loss of my husband John. **Barbara Pitfick**

I wish to thank my co-workers and ESO for their kind expressions of sympathy during the recent loss of my husband Kevin. **Nancy Budd and Family**

Next Edition: October 24

Unit Values

The Grumman Employee Investment Plan has reported the following unit values as of July 31 (compared to June 30 figures):

Equity Fund
3.561 down from 3.785

Fixed Income Fund
5.470 up from 5.429

Guaranteed Income Fund
2.301 up from 2.281

Company Stock Fund
$25.38 down from $29.06

Note: It usually takes several weeks to formulate these values. EIP members can call Ext. (111) 54400 (outside Grumman, call 516-575-4400), for a recorded message which is made as soon as the new unit values are available.

Super Tomcat Rates A+ On Maiden Flight

CALVERTON, L.I. — Hal Sheprow glanced at his watch and said, "It's been out there about an hour. This is normal."

It was 3 p.m. and Sheprow, who is F-14 flight test manager, was waiting for the liftoff of the F-14A+ Super Tomcat. Threatening skies earlier had postponed the flight until the afternoon; now, there were more delays. There were some abnormalities with telemetered data that had to be resolved to assure safe flight. Nothing major — just time consuming.

Then, at 3:22 p.m., the Tomcat took off into sunny skies.

The aircraft was flown by Grumman F-14 Project Test Pilot Joe Burke. Following close behind were two F-14 chase planes: one from Grumman, piloted by Pete Tummillo, and a second from the Naval Air Test Center, Patuxent River, Md., flown by Cdr. Jim Coleman.

This flight was also the first time a combined Grumman/Navy test team was established — including air crews — to develop and demonstrate a major Grumman aircraft.

Though equipped with powerful new GE engines, the test aircraft, F-14 No. 7, is a decade-old airframe. It has functioned as a testbed since it was built.

"You can really feel the increased thrust of the Super Tomcat over the earlier F-14," said Burke. "The new engines offer 35 percent more thrust in 'mil power.' That's what we call acceleration without using the afterburners. The two chase planes had to use their afterburners just to keep up with the Super Tomcat.

"The increased thrust translates into enhanced air-combat maneuverability," he noted. Fuel consumption for like speeds is also reduced significantly.

Burke flew the plane to warning area 105, which is about 45 miles south of Calverton over the Atlantic Ocean. This is a zone set aside for test exercises.

A few glitches were recorded during the flight, but nothing to do with its new engines: they performed flawlessly. Due to a fuel system imbalance, the test team curtailed the flight. Burke took the F-14 to Mach 1.2 and 25,000 feet during the hour-long flight. He was originally going to fly to Mach 1.4/1.5 and 40,000 feet, and the flight was to be 90 minutes long.

"However, we were able to do most of what we set out to do," said Burke. A basic functional checkout of such items as the flaps, slats, speed brakes, environmental control systems, and instrumentation was completed as planned. The test team also ran several checks on the transonic throttling characteristics of both engines to evaluate engine response.

This was the first test flight to use the Automated Telemetry Station's new computer system. The network of mini- and microcomputers more than doubles the station's computing capacity. The computers are the first part of a $30 million upgrade that will be complete in mid-1987.

"The new computers functioned flawlessly throughout the flight," said Tom Kastner, manager of the ATS for Aircraft Systems. "We received a solid telemetry signal, once the instrumentation problem was corrected."

Kaster noted that the Data Systems Division designed the network to Aircraft Systems Division requirements. One of those requirements is a busy workload of critical flight test programs. "The ATS is an excellent example of cooperation between the divisions," he said.

The liftoff drew a throng of spectators. Some crowded into the second floor debriefing room, where loudspeakers broadcast the chatter between the plane, the control tower, and the Automated Telemetry Station. Others watched from the fence by the flight line.

Some F-14 design engineers drove 50 miles from Bethpage to watch the event. For many of the young people there, this was a first.

"It's exciting to watch something you've seen on paper finally take off," said Walter Quermann, a propulsion engineer. "It makes all the paperwork worthwhile."

Charlie Bailey was well acquainted with this particular aircraft in the past few hectic months: he's plane captain on the three-person crew that checked the aircraft out to ensure its flight readiness.

"When you've watched it being built up, you're really eager to see it fly," he said. The day after the flight, Bailey's crew was out on the flight line again, combing over the entire aircraft to make sure nothing was amiss from the flight.

A dozen attendees travelled about 600 miles to see the first flight: they work for GE's Evendale, Ohio, aircraft engine division, near Cincinnati. Gene Bryan, a GE liaison engineer, was involved in the early demonstration flight program of the GE engines in 1981.

"This is the payoff for all the work that's been done by our people and yours," he said. "The F-14 is an excellent aircraft for the 1990's."■

Blue Skies Again. *The Super Tomcat — that's the upper plane — took its first test flight on September 29. It was followed by a Navy F-14 chase plane.*

Final Checkup. *An engineer from General Electric monitors results of preflight tests of the Super Tomcat. This new version of the Tomcat has powerful GE engines that provide 35 percent more thrust in acceleration without afterburners. The increased thrust means better air-combat maneuverability and lower fuel consumption. (Photos by Gerry Costello and Karl Thoma)*

Grumman World — Vol. 5, No. 18, October 10, 1986. Published twice a month for active and retired employees of Grumman Corporation, 1111 Stewart Ave., Bethpage, N.Y. 11714. W.B. Jones, Vice President-Public Affairs.

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Masterson To Head Public Affairs In Fla.

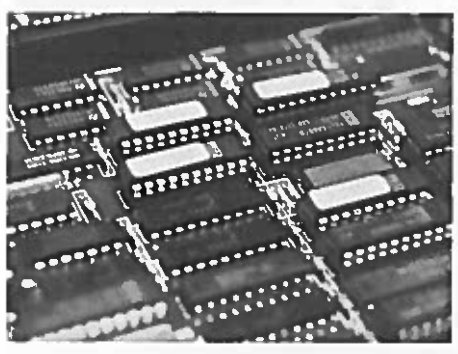
Brian Masterson has been named director of Public Affairs for Grumman's Florida operations.

He will have overall responsibility for public affairs activities including governmental relations, and will represent Grumman in Tallahassee for legislative and regulatory matters.

Masterson will be based at 100 Rialto Place, Melbourne, Florida — headquarters of Grumman Melbourne Systems. His phone number is (305) 729-6838.

Flawless Results. *In Grumman's Automated Telemetry Station, John Keeling, Mike Healy, and Dan McKittrick monitor flight test results.*

Testing 1-2-3: Army's Versatile New ATE Takes Shape



The System's Brain. *Above, Dave Harenberg and James Gee work on an interface device for the IFTE commercial equivalent equipment. At left is a section of a virtual instrumentation circuit board. Below, Fred Shepherd and Jim Keegan use a minicomputer to check software they've developed for IFTE. (Photos by Bob Settles and Rich Breunig)*

Intermediate Forward Test Equipment will handle the

MELVILLE, Long Island — The olive-drab S-280 Army shelter looks a bit out of place in the middle of Grumman's automatic test equipment (ATE) lab here.

The lab's engineers, computer scientists, and technicians are working almost 'round the clock on Intermediate Forward Test Equipment (IFTE), the Army's next ATE. Outfitted with IFTE components, the S-280 shelter will ride aboard an Army truck to the outskirts of the battle zone. It will troubleshoot the electronics of virtually everything in the Army's inventory.

In the IFTE lab, the clicking of keyboards mingles with the whoosh of powerful air conditioners. The lab's crew is working rather frantically because next week, the shelter — called a base shop test facility — will show off its stuff at an Army exposition. They want it to have a perfect debut.

Darwin Green, Grumman's program manager for IFTE, points to a second IFTE test bench that's up and running. This less-rugged version, called the commercial equivalent equipment, will go to weapon systems manufacturers and Army bases.

"The fact that Grumman has built two working systems is quite a feat," says Green. "Normally, development of an ATE system of this magnitude spans 36 to 42 months. We have contracted to do it in 27 months. We're almost midway and we're right on target."

Once it goes into production, IFTE will be *the* Army ATE: the one it's replacing is a decade old, outdated, and cumbersome. The Army also has dozens of small ATE's that IFTE will eliminate.

"The Army now has a clear ATE policy," says Green. "All new weapon systems, and all weapon systems that undergo major changes after 1990, must be supported by IFTE.

"Until now, ATE's have been limited in life," he adds. "However, IFTE is open-ended in design. That is, as new equipment is developed, new capabilities can be incorporated into IFTE through the simple addition of an electronics board and software."

Where IFTE will be used will be a great big "first" — the direct support zone. In war scenarios, this zone encircles the immediate battle area. ATE's have never been designed to be used this far forward in the field.

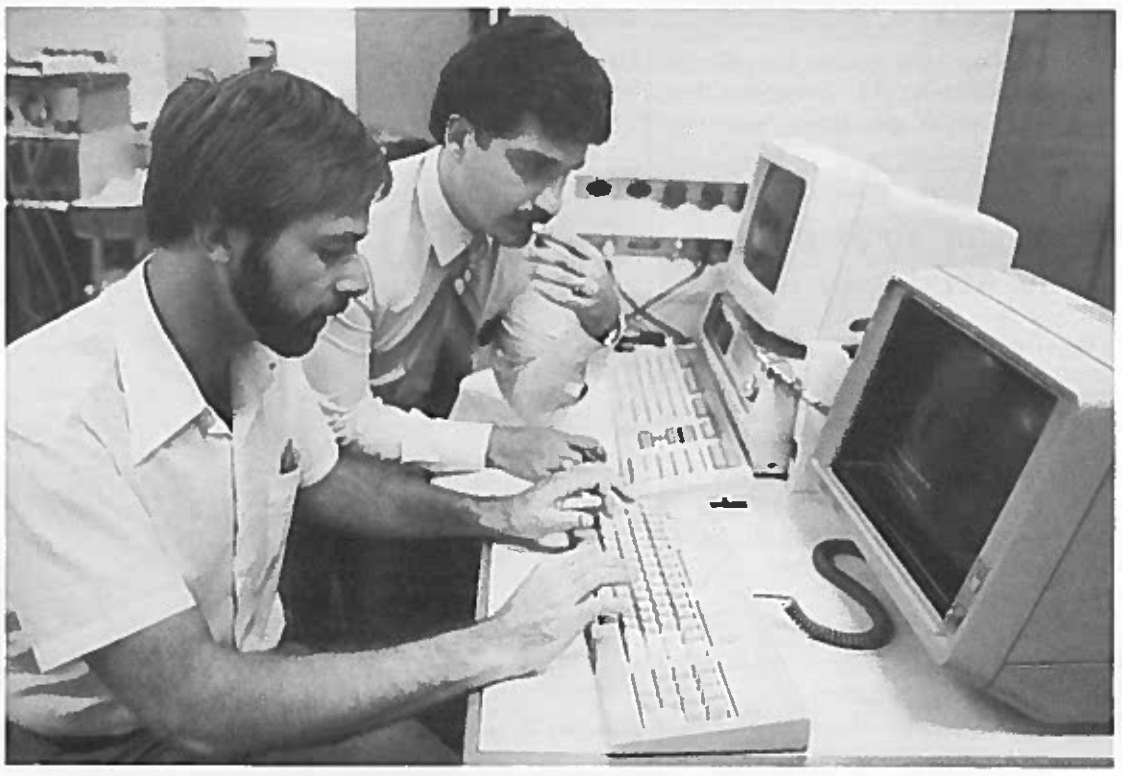
Each base shop test station is self sufficient, with its own generator, air conditioning system — even a double entry through which the soldier can be cleansed of toxins. The shelters also are shock-resistant, protecting their precious cargo from the jolts of bombarded roads.

'IFTE has been designed to be easily understood by average soldiers — most of whom enlist during or after high school.'

In addition to the two test benches described, a portable tester has been designed as part of IFTE: the contact test set. This briefcase-sized tester will go even farther afield, enabling a service person to diagnose and repair a faulty system right where it malfunctions. Its portable computer uses tiny bubble cassettes to run test programs. These are a little over an inch wide.

The commercial equivalent equipment will be used for test software development by both the Army and vendors. This will ensure that future weapons systems are compatible with IFTE. A separate system for development means the more-costly base shop test facility won't be tied up for this purpose.

IFTE has been designed to be easily understood by average soldiers — most of whom enlist during or after high school. All three of its subsystems will make extensive use of color graphics and touch sensitive computer screens. Even sexier: voice synthesis.



"IFTE will enable the automatic pinpointing of faults within the unit under test," says Joe Langone, group leader for ATE Engineering. "This is accomplished using the test program sets developed on the commercial equivalent equipment, which mate the base shop test facility to faulty weapon system components, and automatically put the unit through its paces.

"However, much of the equipment now in the field wasn't designed for full automatic testing," says Langone. "Therefore, each base shop test facility bench will have a probe. This is a microphone-sized device that the soldier uses to poke around an electronic board to isolate where a problem is occurring. Voice prompts will guide the soldier through the test sequence."

The contact test set's screen is easy to read in both harsh sunlight

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my's entire arsenal

and at night, when the soldier has the brightness turned down to evade enemy detection. Its touch-sensitive screen is operable by a soldier wearing the Army's bulky cold weather gloves.

One of IFTE's greatest selling points is space savings. By replacing the hodgepodge of current ATE's, it will reduce the amount of storage space required and simplify the Army inventory. To demonstrate how it replaces an existing ATE, Angelo Del Mistro, a systems engineer in the lab, pulls out an 18 x 18 inch circuit board. The technological term for this is virtual instrumentation.

"This plug-in circuitry tells the system's "brain' how to act like a particular ATE device or devices," says Del Mistro.

Del Mistro also gestures toward the Equate system, the old Army ATE, at the back of the IFTE lab. Though less capable, it takes up as much room as the base shop test facility and the commercial equivalent equipment electronics combined. The lab brought it into Melville so software could be converted to IFTE and "captured" for IFTE deployment.

Del Mistro mentions another advantage. "Storing test programs on bubble cassettes reduces the space taken up by magnetic media," he says. "You can house a lot of bubble cassettes in the same space taken up by a few disks. Remember, there isn't a whole lot of room inside the BSTF shelter.

"Because the contact test set is small, a few spares could be kept on hand in the base shop test facility."

'Plug-in circuitry called virtual instrumentation tells the system's brain how to act like a particular ATE device or devices.'

One of the more curious pieces of Army equipment that has been brought into the IFTE lab is the Teampack, a portable communications and listening post. It looks like a Spielberg movie prop: it's olive green, and about seven feet square. The Teampack is one of the larger weapon systems the three IFTE components are being programmed to handle.

Three other base shop test facility shelters are due to arrive in the next few weeks. Langone is anxious for that to happen so the IFTE team can do more software development.

"By the end of next year, when the development contract is completed, we must create 30 test program sets," says Langone. "Right now, we're keeping the commercial bench and the base shop test facility on from about 6 a.m. to 10 p.m. from Monday through Saturday. Everybody works a 10 hour day — some on days, others on nights. Having those other stations will ease that.

"It's a really dedicated crew," he continues. "We've been living with this for a year. There will be a lot of proud, satisfied people when we've finished."

The first base shop test facility will begin the test phase at the end of this year. The basic operational tests will be conducted in the lab by Grumman. Then, the unit will be turned over to the Army for rigorous environmental testing.

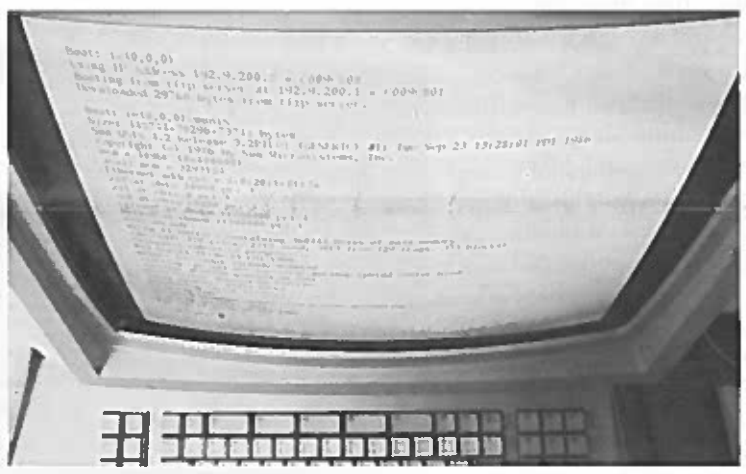
"The Army tests for resistance to shock, vibration, electromagnetic interference and electromagnetic pulses," says Langone. The latter are a phenomenon that would come with a nuclear explosion.

Even after IFTE goes into use, its designers expect to be busy. They'll be working on additional circuitry and software, which will let IFTE handle electro-optical equipment and spread-spectrum communications equipment — technologies now coming into their own in weaponry.

Grumman's investment in ATE technology earlier in the decade is widely credited with giving a head start to the IFTE program. A few years ago, Grumman unveiled a generic ATE called System X. The technological principles found on System X have also been designed into IFTE.

"Think of System X as the stem the flower grew from," says Green.

"As far as return on that investment goes, IFTE has excellent potential," he adds. "I'm not just speaking in terms of revenues. The technology we now have in house gives us great opportunities for future business. IFTE has given us a chance to build an excellent relationship with an important customer: the Army."■



Self-Sufficient Shelter. *At top, Greg Stefanelli checks out a program inside the almost-complete base shop test facility. At middle, computer programs are being set up to be easy to use. At bottom, Bob Tupper works on mating virtual instrumentation circuitry to the commercial equivalent equipment's software.*

People In The News

Navy Salutes Hutter

Mickey Hutter of Grumman's Washington (D.C.) Operations recently received the Chief of Naval Operations' Meritorious Public Service Award for outstanding support of the U.S. Navy.

Adm. James Lyons, commander-in-chief of the Pacific Fleet, presented the award to Hutter at the Navy League's annual convention in San Francisco, California.

Point Mugu Trio Honored

Grummanites Joe Rivera, George Rowe, and Ken Williams recently received certificates of appreciation from the Center for Employment Training (CET), Oxnard, California, for their volunteer work.

Rivera, Rowe, and Williams work for Grumman Aircraft Systems at the Pacific Missile Test Center, Point Mugu, California.

CET is a private, non-profit, community-based organization providing job training and employment placement to the economically disadvantaged.

During their free time, the three men have trained CET clients in areas such as electronic technology, micro electronic assembly, the machine shop, plant maintenance, drafting, and office skills. They have also taught interview tactics to the CET students.

Rivera, Grumman personnel administrator and Equal Employment Opportunity coordinator, has been a member of the Advisory Board of CET since its inception in 1981.

Rowe, manufacturing supervisor, has also been active in CET since 1981. For two years, he served as chairman of the CET Industrial Advisory Board, which has representatives from such companies as Grumman, IBM, and Burroughs.

Williams, an electronic test technician, has provided instruction and consultation in his spare time in electronic technology and assembly.

According to Rivera, Grumman does not hire CET clients because they are trained only for entry level positons; the 300 workers at Pt. Mugu are hired for high technology work. However, Grumman plays a part in helping CET by donating excess machinery and equipment to CET. The most recent donation was a Bridgeport 31-inch bed milling machine.

Professionally Speaking

Two Grummanites now hold top positions in the Society of Logistics Engineers (SOLE).

Bob Denien has been appointed to SOLE's board of advisors. He is vice president of Integrated Logistics Support (ILS) in Grumman Aircraft Systems. The advisory board provides policy-level guidance for this international professional society.

Ben Burns has been re-elected director of District 10, which includes the Long Island chapter and other SOLE chapters in the Northeast. Burns is a specialist in Program Controls, Building 106, in the ILS department of Aircraft Systems.

Award Winning Boss

Logistic support to a reservist can mean a boss who understands that he can't work Saturday because he's on duty that weekend.

The Army gives awards to understanding bosses and asks its reservists to nominate them. Plant 2 diemaker Frank Martin, a staff sergeant in the 306th Engineering Company in Amityville, Long Island, told the Army that his boss, Joe Oliva, deserved the award. The Army, after reading Martin's nominating letter, agreed.

Oliva, a tool fabrication foreman, received a Department of Defense certificate of appreciation on behalf of the National Committee for Employer Support of the Guard and Reserve from Martin's commanding officer, Capt. Richard Vience. In addition, Oliva is now up for a New York State award.

"Joe has been both a good boss and a good friend for six years," Martin wrote in his letter. "He has always supported me with my full-time career at Grumman, my part-time career in the Reserves, and my personal life."

Good For GI's, That Joe. *Capt. Richard Vience, commanding officer of the 306th Engineer Company of the Army Reserve, presents a certificate of appreciation to Joe Oliva (second R), tool fabrication foreman in Building 2. With them are (from L) Bernard Cody, manager of Tool Fabrication Operations; John Czugh, manager of Tool Fabrication; Sgt. Bill Fritze of the 306th; and diemaker Frank Martin, a member of the unit.*

Brush Up On Your High-Tech Language

Data Systems computer user group meetings open to all Grummanites

End User Computing has announced its schedule of computer user group meetings for the fall.

User group meetings cover the entire end user computing spectrum — from micros to mainframes. All are held at 9 a.m. on the meeting date in the Grumman Headquarters auditorium, concourse level. Though the meetings are run by the Data Systems Division, they are open to all Grummanites and usually pack a full house.

An October 28 meeting will feature discussions of three software packages for the IBM Personal Computer. The first, Quick DOS, is a utility package that makes PC/DOS (the IBM PC's operating system) easier to use. The other two packages are Take Two, a software-based file backup system, and MultiMate Advantage, an enhancement to the popular MultiMate word processing package.

The November 13 meeting will explore some sophisticated ways Focus is used at Grumman. Focus is a fourth generation computer language used mainly for business-type systems. The December 18 topic will be communications and will touch on local area networks and The Application Connection (TAC) by Lotus, a software package Grumman is evaluating.

The user group meetings are held as a service for Grummanites from every division. If you'd like more information, call Barbara Mencher at Ext. (III) 59944.

Obituaries

Ernest A. Andrews of F-14 Composites Installations, Calverton, Aircraft Systems, died Aug. 29 at the age of 56. He had been with the company since 1954 and resided at 29 Cinque La., Bayport, N.Y.

Frank R. Cyr of Pride Line, Bethpage, Aircraft Systems, died Aug. 23 at the age of 47. He had been with the company since 1966 and resided at 161 Lanier Pl., Westbury, N.Y.

Donald Gertz of Navigation & Control Equipment Design, Bethpage, Aircraft Systems, died Sept. 7 at the age of 56. He had been with the company since 1966 and resided at 50 Clearland Ave., Carle Place, N.Y.

Willie Hanberry of Camera Graphics, Bethpage, Aircraft Systems, died Sept. 3 at the age of 58. He had been with the company since 1966 and resided at 561 Boulevard Ave., Central Islip, N.Y.

Einar Hoel of Advanced Material & Process Development, Bethpage, Aircraft Systems, died Aug. 30 at the age of 66. He had been with the company since 1966 and resided at 100 Stone St., Elmont, N.Y.

Richard J. Nagle of Inventory Management, Great River, Electronic Systems, died Aug. 19 at the age of 63. He had been with the company since 1974 and resided at 214 Smith Ave., Holbrook, N..Y.

John J. Pitfick of Material Management, Bethpage, Aircraft Systems, died Aug. 31 at the age of 43. He had been with the company since 1964 and resided at 8 Lindberg Ct., Northport, N.Y.

Retiree Obituraries

Martin Banczek at Box 189, RD #1, White Haven, Pennsylvania, died August 17, 1986. He retired in 1982.

George A. Burns at Rt. #1, Box 1260, Anderson, Texas, died August 10, 1986. He retired in 1970.

Patrick Croal of 151 William St., Williston Park, N.Y., died August 11, 1986. He retired in 1970.

Muriel A. Pannullo of 148 Pointe Circle North, Coram, N.Y, died August 14, 1986. She retired in 1983.

Russell T. Robarge of 1 Harriet Ave., Hempstead, N. Y., died August 18, 1986. He retired in 1968.

John J. Simpson of 40-12 Eastwoods Muttontown Rd., Syosset, N.Y., died August 13, 1986. He retired in 1974.

Harold R. Arnett of 15 Larkspur La., Debary, Florida, died August 20, 1986. He retired in 1971.

Frank A. Bonade of 152 3rd St., Huntington Sta., N.Y., died Sept. 19, 1986. He retired in 1982.

Andrew J. Breunig of 433 S. Shore Dr., Osprey, Florida, died Sept. 13, 1986. He retired in 1984.

John Collins of 30 Wallace St., Apt. 1F, Freeport, N.Y., died August 21, 1986. He retired in 1978.

John T. Costigan at P.O. Box 195, Mt. Sinai, N.Y., died August 21, 1986. He retired in 1984.

Anthony N. D'Amico of 38 Pearsall St., Babylon, N.Y., died Sept. 19, 1986. He retired in 1965.

Hans J . Eftang of 501 S. Seas Dr., Jupiter, Florida, died Sept. 13, 1986. He retired in 1982.

Milton Fishbein of 1453 Findlay Ave., Spring Hill, Florida, died Sept. 4, 1986. He retired in 1977.

George J. Gru of 11 W. Seaman Ave., Baldwin, N.Y., died August 6, 1986. He retired in 1973.

Joseph E. Krumey of 707 SW Ravenswood, Pt. St. Lucie, Florida, died Sept. 9, 1986. He retired in 1971.

Harry Kummerfeldt of 23 Ridge Rd., Wheatley Heights, N.Y., died Sept. 9, 1986. He retired in 1977.

Ralph L. Leyrer of 3343 E. Clarendon, Phoenix, Arizona, died Aug. 4, 1986. He retired in 1978.

Joseph M. Longo of 765 40th St., Brooklyn, N.Y., died Aug. 31, 1986. He retired in 1978.

August Miller of 955 Ocean Ave., Baldwin, N.Y., died Sept. 2, 1986. He retired in 1969.

Your United Way Dollars Can Make The Difference

Laura's favorite toy is a shoelace — she is as attached to it as "Peanuts" character Linus is to his blanket. Laura also likes to paint and ride her bicycle.

Laura is 25 years old and mentally retarded.

The United Way helps fund an organization that helps Laura fit into a world that doesn't always understand her: the Association for the Help of Retarded Children (AHRC). Last year's Long Island United Way campaign raised $70,000 for the Suffolk AHRC. This group helps Laura to reach her potential, and her family to cope.

"Imagine having a child who will never mentally grow up and who constantly needs supervision," says her father, Walter Steck, director of resources for Great River Operations. "Laura can never be left alone. Thanks to the day treatment program at the AHRC center, my wife can work part time.

"And the AHRC — thanks to the United Way funds — provides Laura with an opportunity to learn and interact with other people," says Steck.

When Laura was born, she seemed healthy. The Stecks began to worry when she turned three and had not uttered a word. "In the beginning, it was difficult to accept the fact that our daughter was retarded — that she wasn't going to attend kindergarten like other children," says Steck.

The Stecks also have a daughter, 18, and a son, 22, who are not retarded. "Since Laura was the firstborn, it was difficult not to worry that our next child might be retarded," recalls Steck. "But my wife and I love Laura as much as our other two children. Because of her, we are more caring people."

"Years ago, the retarded were misunderstood and put in mental institutions," says Steck. "The AHRC provides her with a life other than an institutionalized one."

The first AHRC chapter was established in 1949 to improve the quality of life for the retarded through education and training. The Suffolk County, Long Island, AHRC chapter was founded in 1971. The chapter is governed by a voluntary board of directors consisting mainly of parents: Steck has been on the board for two years.

Nearly 1,000 mentally retarded adults between the ages of 21 and 80 use the Bohemia AHRC.

The center teaches them skills such as personal hygiene, proper nutrition, and how to handle money. Laura is currently learning how to make a bed.

There are different degrees of retardation and the AHRC has programs tailored to the needs of each person. For instance, those who can work do inventory for various Suffolk companies in AHRC's workshop.

Many of the people who go to the center, however, are in less advanced programs. They have short attention spans and need constant supervision — which is provided by the day treatment program.

Laura is in the highest level of this group. They are given projects to increase their concentration. Laura, who has increased her attention span from five to 15 minutes, enjoys working on an assembly line where several people put together a bicycle part.

Although many retarded people can develop their learning abilities, they can't always express themselves. Once, on an AHRC bus trip, Laura would not stop screaming. "We thought Laura was regressing so we took her to the doctor," says Steck. "It turned out that she had an inner-ear infection, which caused her to be dizzy. Because she didn't know what was happening, her reaction was to scream."

Parents of retarded children always worry about what will happen to them after they're gone. To ensure that Laura will have a place to live in the future, Steck has put her on a waiting list for an AHRC community residence.

"Contributions from the United Way help the AHRC to exist and allow my daughter to have a future," says Steck. "I am at peace with myself knowing that Laura will always be taken care of."■

Having Fun On The Job. *Laura and her friend Donald put together bicycle parts at the Association for the Help of Retarded Children Center in Bohemia, L.I. (Photos by Rich Breunig)*

Extra Special Love. *Walter Steck, director of resources for Great River Operations, Long Island, is grateful to the United Way. Thanks to the organization's funds, the Association for the Help of Retarded Children has given his daughter, Laura, a better life.*

United Way Drives In Full Gear

United Way campaigns will be in full swing at Grumman sites throughout the U.S. now through October 31.

"Last year, one out of three Grummanites received assistance from agencies supported by the United Way," says Data Systems Institute Vice President Charlene Russert, who is Grumman's Long Island 1986 United Way chairperson. "When you give to the United Way, you are helping people genuinely in need. This is your chance to show you care."

Last year, 84 percent of Grummanites company-wide participated and raised $1.3 million; this year's goal is $1.5 million, with 100 percent participation.

In all, there are 37,000 voluntary agencies and hospitals throughout the United States that receive funds from the United Way — such groups as the Association for the Help of Retarded Children (see main story), American Red Cross, Boy Scouts, Salvation Army, Urban League, and United Cerebral Palsy. In 1987, the United Way of America will mark its 100th anniversary.

On October 13, Grummanites will receive a United Way package through the payroll department. It will have information on agencies the United Way supports. There will be a card for enrolling in the payroll deduction plan.

During the drive, Grumman representatives will ask those who don't participate in the payroll deduction plan to do so. They'll also ask those who do to increase their contribution. Grummanites may also make a one-time monetary donation.

Every person who contributes receives a gift — a pocket magnetic address book stamped with the United Way and Grumman logos. Contributors names will automatically go into a November 21 drawing. Two hundred prizes, including VCRs, TVs, and radios, will be awarded.

The United Way campaigns at the larger Grumman facilities nationwide will take place on the following dates:

Long Island, N.Y.
October 13-31

Glen Arm, Md.
October 13-31

Houston, Tex.
October 1-31

Irvine, Calif.
October 13-27

Mayfield, Penn.
September 17 - November 13

Milledgeville, Ga.
October 13-31

Montgomery, Penn.
September 29 - November 15

Pt. Mugu, Calif.
October 27-31

Roanoke, Va.
October 16-24

St. Augustine, Fla.
October 13-31

Stuart, Fla.
October 13-31

Salisbury, Md.
October 13-31

Sherman, Tex.
September 15 - October 15

Sturgis, Mich.
September 25 - November 13

Titusville, Fla.
October 13-31

GrummanWorld
October 10, 1986

(Photo by Bob Settles)

Off The Drawing Boards And Into The Lab

Computer software for the proposed upgrade of the Hawkeye's radar and target detection systems is now being tested in the E-2C Systems Engineering and Software Development Facility in Bethpage.

Putting the software through a recent test in the Hawkeye lab are Warren Soper (L), Software Systems Group 2 team leader; and Laura Braggini, design and analysis engineer.

In the near future, the proposed radar system will undergo a formal Naval Pilots' Evaluation at Patuxent River, Maryland.

Letters

Nassau County has shown initiative by putting a tough smoking law into effect. Why is it that Grumman does not have the courage to follow suit and make "no smoking" an across-the-board decision for its plants in the state of New York?

The company is trying to bolster the situation by sponsoring a "Quit Smoking" program for smokers. This should help those that really want to stop and stay healthy. However, as with any program, there are easy paths back to smoking by those who try to quit. These paths should be blocked wherever possible.

For instance, a great many people must travel between plants in the Grumman complex. Does it make sense that Grumman now has "smoking" plants in Suffolk County and "non-smoking" in Nassau County? Must we always have loopholes in laws and regulations?

Let's show some of the guts that has made Grumman an industry leader. Adopt the Nassau County smoking regulations throughout our New York plants. It will make for a healthy workforce and reduce medical costs.

John A. Caruso
System Concepts
Building 112

Grumman Dependents Encouraged To Compete For 1987 Scholarships

Tuition grant increases to $6,000 in '87

Applications for the 1987 Grumman Science and Engineering Scholarships are now available. All Grumman sons and daughters who are high school seniors interested in engineering or science careers are eligible to compete. Application deadline is November 1.

Each year, Grumman awards a minimum of 12 scholarships. In 1987, the company will increase its yearly grant to $6,000 per student. Approximately half of the scholarships go to sons and daughters of Grummanites all over the country; the remainder to Long Island high school seniors.

Scholarship winners are also offered summer employment and a permanent job with Grumman after they graduate college.

Applications are available in Grumman administration offices throughout the country and at high school guidance offices on Long Island.

For more information, contact Paul Sluiter in the Scholarship Office, (516) 575-2682 or Ext. (111) 52682.

Let Us Know

We don't want to do all the talking.

We'd like to know what you think about the things you see in these pages, and what you see going on in the company. Serious comments, questions and complaints are welcomed, and will be answered by the people most qualified to respond. We'll get back to you pomptly with their replies. If the topic is of general interest, we'll print it.

Letters to the editor should be addressed to *Grumman World*, 1111 Stewart Avenue, A22-GHQ, Bethpage, N.Y. 11714, and should include your name and address. Letters may be edited for clarity or space.

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